

# STREAMLINE PROCESSES WITH CUSTOMIZABLE AUTOMATION

AutoMate 2500 Family Sample Processing Systems



# STREAMLINE PROCESSES WITH CUSTOMIZABLE AUTOMATION



### The AutoMate 2500 Family has

everything you need to streamline pre- and post-analytical processes and position your lab for optimal performance and labor usage.

Plus, with the Auto*Mat*e 2500 Family, your lab can accommodate greater workflow by eliminating steps between sample receipt and the analytical stage. When you need to improve lab efficiency, turn to the Auto*Mate* 2500 Family for an automation system that fits your lab's unique requirements.

### **Sample Loading**

- > Easy-loading drawer offers convenient and continuous access to racks for loading samples while robotic handlers safely and efficiently process samples through the Auto*Mate*.
- Dedicated stat input area enables priority processing for rapid test turnaround time
- Processes tube sizes from 10.5–17 mm in diameter; 70–110 mm in height (with cap)
- Recognizes most standard bar codes in compliance with the Clinical and Laboratory Standards Institute (formerly known as NCCLS)

### **Single Point of Entry**

- > Manages sample tubes from entry into the laboratory until archiving
- Re-sorts samples for pending test routing or for storage when samples have volume remaining
- > Sorts stats to separate locations
- > Up to 24 dynamically-configurable rack locations for unparalleled sorting flexibility
- > Unloads/loads instrument-specific racks

### **Sample Receipt**

- Sample bar code reader ensures positive patient sample identification and notifies the Laboratory Information System (LIS) of sample receipt
- > Automated measurement of sample diameter and height ensures proper sorting and aliquotting

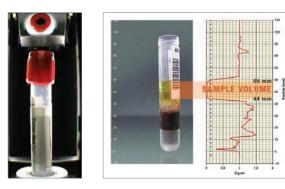
# Tube Inspection Unit (TIU)

#### **Cap Color Recognition**

- > Unique 3D cap color analysis validates sample type against test ordered for error prevention
- > Detection of newest generation of coded caps

## **Volume Determination**

- > Automated measurement of each sample's volume prior to dispensing into aliquot tube or for storage
- > Automated measurement of plasma or serum volume to ascertain whether all aliquots can be created
- > RTLs (read-through labels) provide infrared volume detection through up to three layers of labels on the tube



TIU

VOLUME DETERMINATION

# Decapping

- > Up to two decappers, designed for maximum efficiency and laboratory safety, minimize exposure to biohazardous aerosols
- > Compatible with rubber stoppers as well as plastic and screw-style caps
- > "Smart" decapping selectively removes caps for closed-tube sampling based upon analyzer
- > Caps are automatically disposed

### **Sorting to Sample Racks**

- > "Open" system architecture sorts to generic 50-tube racks or analyzer racks, accommodating transfers to instruments, other lab sections or send-out test requirements
- > Up to 1,200-sample capacity with the use of 24 generic racks, which can be subdivided to create up to 150 sorting locations
- > Drawers are freely definable and dynamically configurable; can use the standard 50 position rack or instrument specific racks

## **Re-Sorting to Sample Racks**

> Allows re-sorting of samples from personality racks after analysis for routing to next analyzer or sample storage; sample routing determined by duration or user-defined destination





## SIMPLE TO USE

- > Intuitive user interface
- > Customizable sorting rules with Sorting-Drive



### **TROUBLE-FREE MAINTENANCE**

- > Load secondary 13 x 75 mm tubes in bulk
- Replace bar code label stock for aliquot tubes via easily accessible slide-out bin; user can define contents of the secondary-tube label\*
- > Integrated storage space for consumables
- > Aliquot tips are ready for use



### **EASY TO INSTALL**

- > Small footprint enables easy installation and requires minimal lab reconfiguration
- > Allows "dynamic" rack configuration to accommodate workload changes



> Accepts multiple tube sizes and styles as well as multiple bar-code symbologies

### OPTIONAL ACCESSORIES:

### Intelligent Sample Banking\*

- > Aliquots samples in intelligent mode
- > Fully automated into different microtube racks for long term storage for up to 7 aliquots from a single sample
- > Easy to store and easy to retrieve
- > Supporting ISO 15189 compliance

### **Re-sealer\*\***

- > Can process up to 1,200 tubes per hour
- > Can handle standard tube sizes
- > Prevents sample evaporation using cost efficient Parafilm





RE-SEALER

ALIQUOTTING

## Aliquotting\*

- Processes up to 600 total samples per hour, including 300 primary and 300 secondary tubes
- > Creates up to seven aliquots per primary tube per run
- > Conductive tips with graphite fraction provide accurate measurement of filling level
- > "Intelligent" aliquotting transfers the proper volume for samples with single or multiple tests
- Computerized prioritization of aliquots ensures most critical samples are created first if sample volume is minimal
- > Detects clots and routes samples for manual processing

# INTELLIGENT SAMPLE BANK (ISB) SOFTWARE

Linked to the Auto*Mate* Family, the Intelligent Sample Bank Software is an innovative, user-friendly application that builds sample banks using microtube racks during automated sample sorting in the pre- and post-analytical phases.

The requirement of the ISO 15189 Standard for medical biological laboratories has an impact on all sample analysis steps, from sampling to results. Manual processes associated with sample storage and the large size sample banks can present difficulties in acquiring this accreditation.

For users, implementation of the sample bank requires only two operations: recording the microtube rack in the system using a barcode reader and confirming the storage unit (freezer) proposed by ISB. The software addresses all requirements of data safety and traceability including patient data, events on samples and user actions.

The software is available in many languages and also touch-screen compatible, offering optimal ergonomics.

#### TESTIMONIAL

**Jean-François Gayrel** Biologist and laboratory Manager.

Eric Viala, Manager of Hub laboratory. Interlab 81-Val de Caussels, Albi (Tarn – France)

Interlab 81 includes 1 hub and 7 spoke laboratories and processes more than 950 patients per day.

"Thanks to the ISB Software, we have started to build our sample bank very quickly on the Auto*Mate* 2500 Family instrument in our laboratory without any worries.

ISB is designed similarly to the AutoMate software: customizable and upgradeable... The level of traceability is established beyond reproach. Throughout all processes, it's possible to get information on specimens. After this, it is very simple to retrieve a specimen. Storage units can be managed comprehensively with a user-friendly interface.

# There are many advantages to combining Auto*Mate* and ISB:

- > Solution is integrated into peri-analytics (no additional instruments)
- Capability to aliquot samples in intelligent mode into different microtube racks (depending on the test orders and disciplines involved)
- > Use of racks with 2D Datamatrix coded microtubes (secure sample identity)
- > Long-term traceability and data security
- Greatly reduced operator time (no manual processing, fast sample retrieval)
- > Total management of storage units
- > Reduction of space needed for storage
- > Reduction of biological waste
- > Total cost savings for the sample bank

1. GBEA - Appendix C - Biological samples storage recommendations

2. SH-GTA-04. §9. Validation of method performance. The criteria of specificity and sensitivity is

to be evaluated, for example based on samples (serum bank)... with known characteristics.

Prep. Del pck

# **MAXIMIZE THE POWER AND EFFICIENCY** OF YOUR LABORATORY AUTOMATION.

# **Sorting-Drive and iPAW**

(intelligent Peri-Analytical Workstation)

Sorting-Drive for the Auto*Mate* 2500 Family and iPAW boost the efficiency and productivity of your lab by streamlining pre- and post-analytical processes. These powerful tools work with your Auto*Mate* to deliver highly flexible and efficient sample processing and tracking, as well as enhanced communication with your LIS.

From departmental and specialty labs to ultra-high throughput operations, Sorting-Drive and iPAW increase control over your workflows and maximize the capabilities of your lab.

When it comes to automated laboratory solutions, nothing says quality, productivity and value quite like Beckman Coulter.

# Enhanced connectivity and networking capabilities.

Combined, Beckman Coulter's Sorting-Drive, iPAW and Auto*Mate* 2500 Family solutions provide exceptional connectivity and networking within individual labs or across multi-site facilities. These systems connect both automated and manual sample processing operations with your LIS for the ultimate in workflow management. Connect unlimited Auto*Mate* and iPAW units to one Sorting-Drive.



- Connect unlimited AutoMate and iPAW units to one Sorting-Drive
- > Link sorting devices in core laboratories and satellite facilities via LAN or Internet connection
- Remotely control sorting configurations of multiple AutoMate and iPAW systems from any location at any time with Sorting-Drive
- Provide system visibility to all networked departments instantaneously
- > Follow the progress of individual tubes from any workstation connected to Sorting-Drive

# **EXERCISE COMPLETE SAMPLE FLOW CONTROL** BY TEAMING IPAW WITH SORTING-DRIVE TECHNOLOGY.



# iPAW is a flexible benchtop laboratory system that introduces automation to manual tube processing and tracking.

iPaw processes and tracks manual samples from sorting command input through archiving and everything between. Improve laboratory quality by reducing common manual processing and archiving errors, manage pediatric and other out-of-range samples, save time with sample tracking, and identify specimen status at any given time.

#### Visually track the number and types of tubes processed by hour or day for multiple systems on one screen.

Easily view tube throughput by day for multiple AutoMate 2500 units to monitor pre-analytical workflow.

#### Conveniently observe tube processing volume by workplaces and by hour to identify bottlenecks in your workflow

Quickly access throughput data by tube type for enhanced process control.

# Laboratory automation that communicates every move.

### Say hello to more control with less effort.

Sorting-Drive Plus is a client-server application that optimizes functionality of your Auto*Mate* 2500 Family or iPAW system by translating test orders from the LIS into sorting commands based on your laboratory's workflow definitions. Sorting-Drive's customized, intelligent tube processing combined with market-leading Auto*Mate* hardware allows you to expand the quality and performance of your laboratory – and maintain complete control.



## AutoMate 2500 FAMILY | SAMPLE PROCESSING SYSTEM SPECIFICATIONS

Sorting Rate	<ul> <li>AutoMate 1200: 800 samples/hour</li> <li>AutoMate 2500: 1,200 samples/hour</li> </ul>
Aliquotter* (1 + 1 aliquot)	<ul> <li>&gt; 600 samples/hour (300 primary, 300 secondary)</li> <li>&gt; AutoMate 1250: 700 primaries with 10% aliquoted to a daughter tube</li> <li>&gt; AutoMate 2550: 900 primaries with 10% aliquoted to a daughter tube</li> </ul>
Sample Container Sizes	> Processes tube sizes from 10.5-17 mm in diameter; 70-110 mm in height (with cap)
Environmental Requirements	<ul> <li>&gt; Heat Output: <ul> <li>AutoMate 1200/2500: 1,030 BTU/hour</li> <li>AutoMate 1250/2550: 1,480 BTU/hour</li> </ul> </li> <li>&gt; Room Temperature: +18 to 32 °C (+64 to 89 °F)</li> <li>&gt; Relative Humidity: 40 to 80% non-condensing</li> </ul>
Laboratory Information System Integration	LIS Interface: Dynamic download or host query
Weight	<ul> <li>AutoMate 1200/2500: 480 kg (1,058 lb)</li> <li>AutoMate 1250/2550: 720 kg (1,587 lb)</li> </ul>

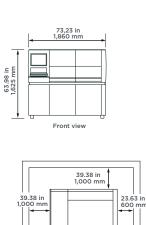
#### Dimensions

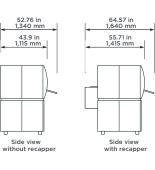
> AutoMate 1200/2500: 1,058 lbs. (480 kg.)

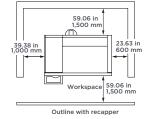
59.06 in 1,500 mm

Workspace

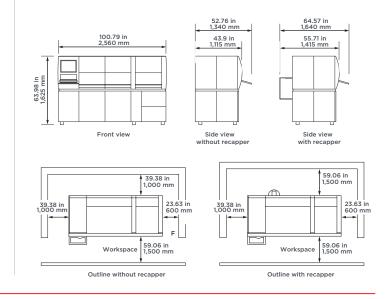
Outline without recapper







#### > AutoMate 1250/2550: 1,587 lbs. (720 kg)



### Learn more at www.beckmancoulter.com/automate



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